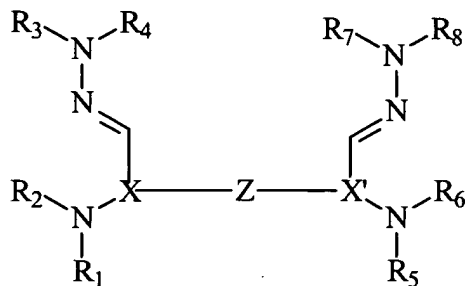


CLAIMS

What is claimed is:

1. An organophotoreceptor comprising an electrically conductive substrate and a photoconductive element on the electrically conductive substrate, the photoconductive element comprising:

(a) a charge transport material having the formula



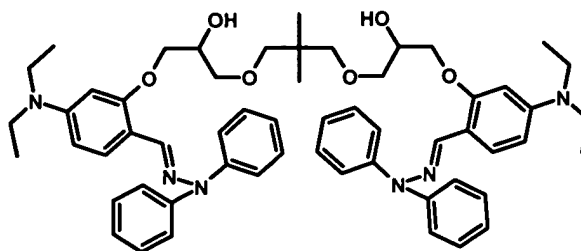
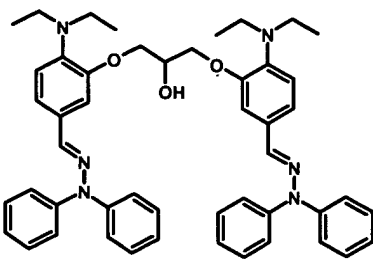
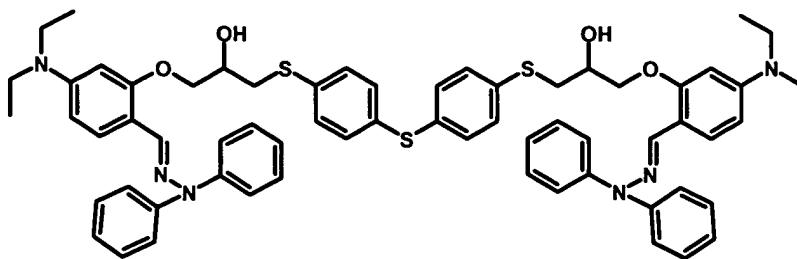
where R_1 , R_2 , R_3 , R_4 , R_5 , R_6 , R_7 , and R_8 are, each independently, an alkyl group, an alkaryl group, an aryl group, or heterocyclic group, X and X' are, each independently, aromatic groups, and Z is a divalent linking group having the formula $-(\text{CH}_2)_m-$, branched or linear, where m is an integer between 1 and 30, inclusive, and one or more of the methylene groups may be replaced by O , S , $\text{C}=\text{O}$, $\text{O}=\text{S}=\text{O}$, a heterocyclic group, an aromatic group, urethane, urea, an ester group, a NR_9 group, a CHR_{10} group, or a $\text{CR}_{11}\text{R}_{12}$ group where R_9 and R_{10} are, each independently, H , hydroxyl, thiol, an alkoxy group, an alkyl group, or an aryl group, and R_{11} , and R_{12} are, each independently, H , hydroxyl, thiol, an alkoxy group, an alkyl group, an aryl group, or a part of a cyclic ring; and

(b) a charge generating compound.

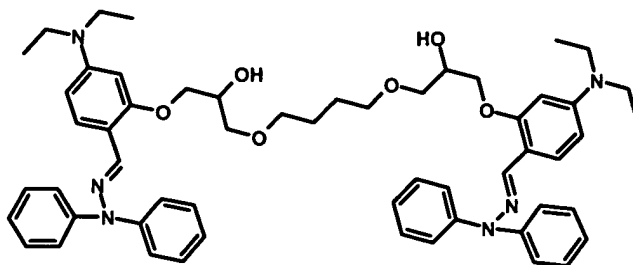
2. An organophotoreceptor according to claim 1 wherein R_1 , R_2 , R_5 , and R_6 , each independently, comprise an aryl group.

3. An organophotoreceptor according to claim 1 wherein X and X' , each independently, comprise an aryl group.

4. An organophotoreceptor according to claim 1 wherein the charge transport material has a formula selected from the group consisting of the following:



, and



5. An organophotoreceptor according to claim 1 wherein the photoconductive element further comprises a second charge transport material.

6. An organophotoreceptor according to claim 5 wherein the second charge transport material comprises an electron transport compound.

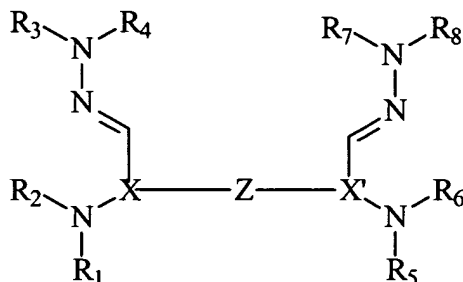
7. An organophotoreceptor according to claim 1 wherein the
5 photoconductive element further comprises a binder.

8. An electrophotographic imaging apparatus comprising:

(a) a light imaging component; and

(b) an organophotoreceptor oriented to receive light from the light imaging
10 component, the organophotoreceptor comprising an electrically conductive substrate and a photoconductive element on the electrically conductive substrate, the photoconductive element comprising:

(i) a charge transport material having the formula



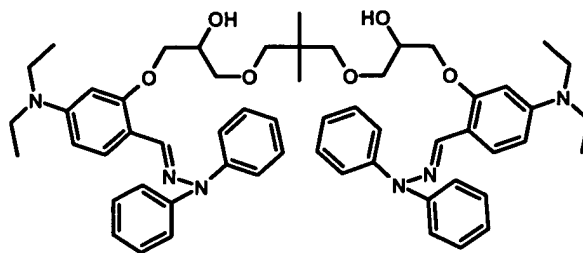
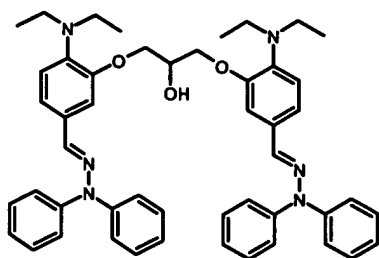
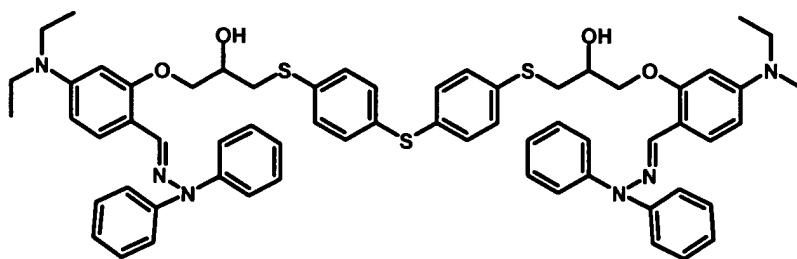
15 where R₁, R₂, R₃, R₄, R₅, R₆, R₇, and R₈ are, each independently, an alkyl group, an alkaryl group, an aryl group, or heterocyclic group, X and X' are, each independently, aromatic groups, and Z is a divalent linking group having the formula -(CH₂)_m-, branched or linear, where m is an integer between 1 and 30, inclusive, and one or more of the methylene groups may be replaced by O, S, C=O, O=S=O, a heterocyclic group, an
20 aromatic group, urethane, urea, an ester group, a NR₉ group, a CHR₁₀ group, or a CR₁₁R₁₂ group where R₉ and R₁₀ are, each independently, H, hydroxyl, thiol, an alkoxy group, an alkyl group, or an aryl group, and R₁₁, and R₁₂ are, each independently, H, hydroxyl, thiol, an alkoxy group, an alkyl group, an aryl group, or a part of a cyclic ring;
and

25 (ii) a charge generating compound.

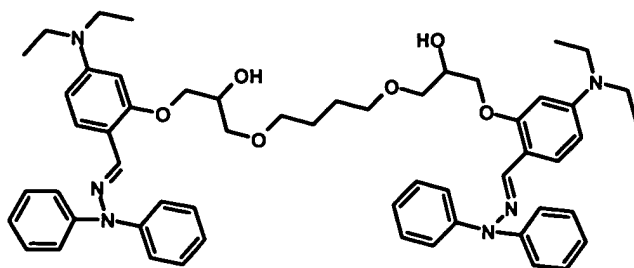
9. An electrophotographic imaging apparatus according to claim 8 wherein R₁, R₂, R₅, and R₆, each independently, comprise an aryl group.

10. An electrophotographic imaging apparatus according to claim 8 wherein X and X', each independently, comprise an aryl group.

11. An electrophotographic imaging apparatus according to claim 8, wherein the charge transport material has a formula selected from the group consisting of the following:



, and



12. An electrophotographic imaging apparatus according to claim 8 wherein the photoconductive element further comprises a second charge transport material.

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13. An electrophotographic imaging apparatus according to claim 12 wherein second charge transport material comprises an electron transport compound.

14. An electrophotographic imaging apparatus according to claim 8 further comprising a liquid toner dispenser.

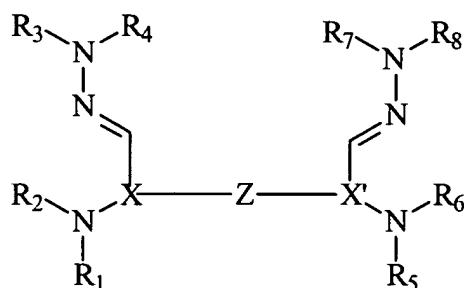
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15. An electrophotographic imaging process comprising;

(a) applying an electrical charge to a surface of an organophotoreceptor comprising an electrically conductive substrate and a photoconductive element on the electrically conductive substrate, the photoconductive element comprising

15

(i) a charge transport material having the formula



where R_1 , R_2 , R_3 , R_4 , R_5 , R_6 , R_7 , and R_8 are, each independently, an alkyl group, an alkaryl group, an aryl group, or heterocyclic group, X and X' are, each independently, aromatic groups, and Z is a divalent linking group having the formula $-(CH_2)_m-$, branched or linear, where m is an integer between 1 and 30, inclusive, and one or more of the methylene groups may be replaced by O, S, C=O, O=S=O, a heterocyclic group, an

20

aromatic group, urethane, urea, an ester group, a NR_9 group, a CHR_{10} group, or a $\text{CR}_{11}\text{R}_{12}$ group where R_9 and R_{10} are, each independently, H, hydroxyl, thiol, an alkoxy group, an alkyl group, or an aryl group, and R_{11} , and R_{12} are, each independently, H, hydroxyl, thiol, an alkoxy group, an alkyl group, an aryl group, or a part of a cyclic ring;

5 and

(ii) a charge generating compound.

(b) imagewise exposing the surface of the organophotoreceptor to radiation to dissipate charge in selected areas and thereby form a pattern of charged and uncharged areas on the surface;

10 (c) contacting the surface with a toner to create a toned image; and

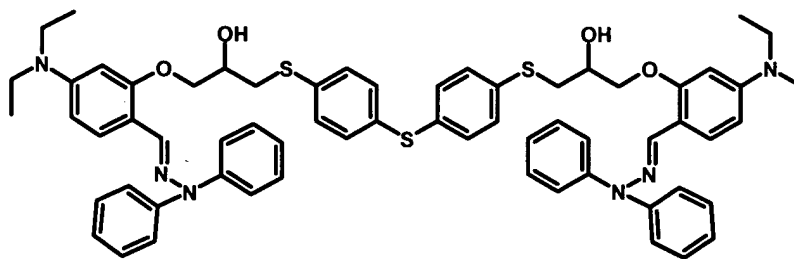
(d) transferring the toned image to substrate.

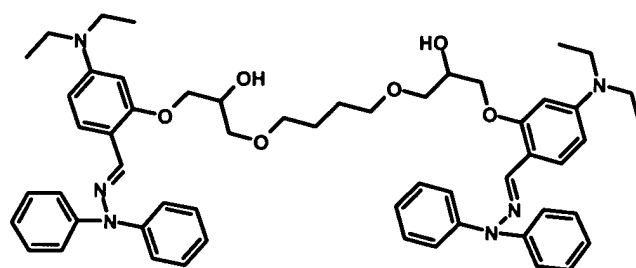
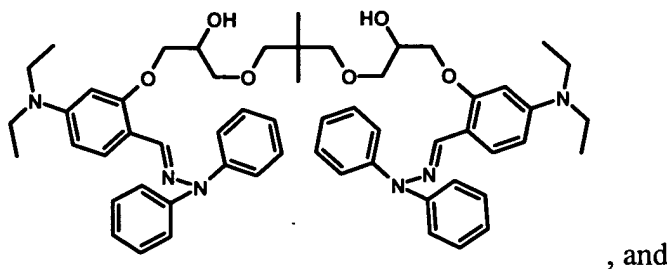
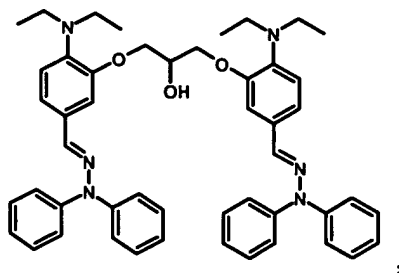
16. An electrophotographic imaging process according to claim 15 wherein R_1 , R_2 , R_5 , and R_6 , each independently, comprise an aryl group.

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17. An electrophotographic imaging process according to claim 15 wherein X and X', each independently, comprise an aryl group.

18. An electrophotographic imaging process according to claim 15 wherein
20 the charge transport material has a formula selected from the group consisting of the following:





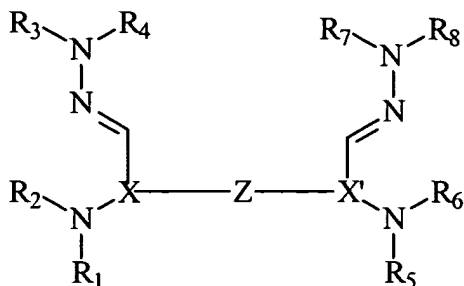
19. An electrophotographic imaging process according to claim 15 wherein the photoconductive element further comprises a second charge transport material.

20. An electrophotographic imaging process according to claim 19 wherein the second charge transport material comprises an electron transport compound.

21. An electrophotographic imaging process according to claim 15 wherein the photoconductive element further comprises a binder.

22. An electrophotographic imaging process according to claim 15 wherein the toner comprises a liquid toner comprising a dispersion of colorant particles in an organic liquid.

23. A charge transport material having the formula

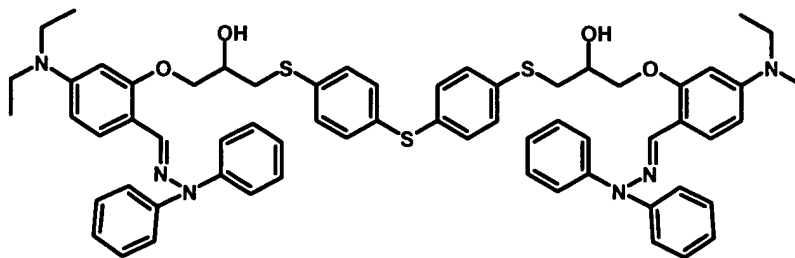


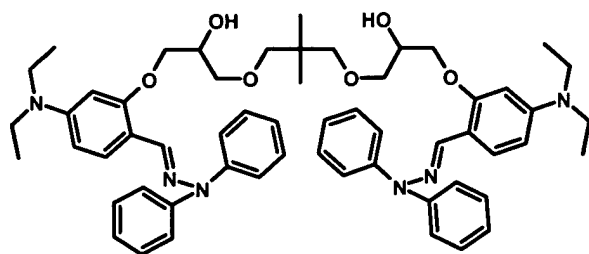
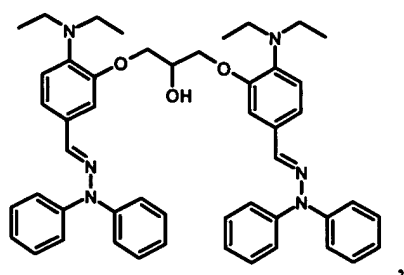
- where R_1 , R_2 , R_3 , R_4 , R_5 , R_6 , R_7 , and R_8 are, each independently, an alkyl group, an alkaryl group, an aryl group, or heterocyclic group, X and X' are, each independently, aromatic groups, and Z is a divalent linking group having the formula $-(CH_2)_m-$, branched or linear, where m is an integer between 1 and 30, inclusive, and one or more of the methylene groups may be replaced by O, S, C=O, O=S=O, a heterocyclic group, an aromatic group, urethane, urea, an ester group, a NR_9 group, a CHR_{10} group, or a $CR_{11}R_{12}$ group where R_9 and R_{10} are, each independently, H, hydroxyl, thiol, an alkoxy group, an alkyl group, or an aryl group, and R_{11} , and R_{12} are, each independently, H, hydroxyl, thiol, an alkoxy group, an alkyl group, an aryl group, or a part of a cyclic ring.

24. A charge transport material according to claim 23 wherein R_1 , R_2 , R_5 , and R_6 , each independently, comprise an aryl group.

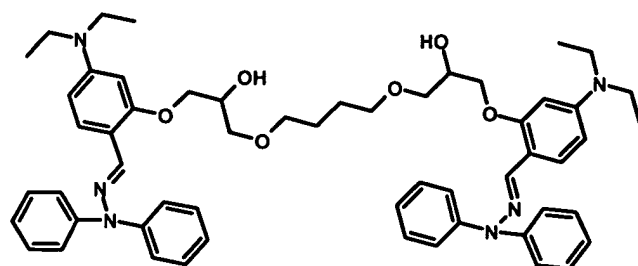
25. A charge transport material according to claim 23 wherein X and X' , each independently, comprise an aryl group.

26. A charge transport material according to claim 23 wherein the charge transport material has a formula selected from the group consisting of the following:





, and



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